

REMARKS

Claims 1, 2, 4-9, 11 and 18-20 are presented for consideration, with Claims 1 and 21 being independent.

The independent claims have been amended to further distinguish Applicant's invention from the cited art. In addition, Claim 11 has been amended to address the objection in paragraph 6 of the Office Action. Claims 12 through 17 have been cancelled.

The amendments to the claims were not presented earlier as it was believed that the previously presented claims would be found allowable. This Amendment cancels claims without adding any additional claims. Moreover, the Examiner's familiarity with the subject matter of the present application will allow an appreciation of the significance of the amendments herein without undue expenditure of time and effort. Finally, the Amendment does not raise new issues requiring a substantial amount of consideration or search. Accordingly, it is believed that entry of the Amendment is appropriate.

Initially, with respect to the comments in paragraph 5 of the Office Action, the refrigerant Flon as discussed on page 6 of the application is understood to not be a trademark. The word "Flon" therefore remains in its present form.

Claim 21 was rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. In response, Applicant respectfully submits that it is not necessary to "adequately disclose equivalents" for the means plus function elements recited in Claim 21. Support for the claimed first and second heater exchanger means can be found, for example, at page 13, line 6, et seq., of the specification. It is therefore submitted that Claim 21 particularly and distinctly sets forth Applicant's claimed invention. Accordingly, reconsideration and

withdrawal of the rejection of Claim 21 under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 1, 2, 4-9, 11 and 18-21 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Endo '816 in view of Tyler. This rejection is respectfully traversed.

Claim 1 of Applicant's invention relates to an apparatus comprising a chamber which encloses an equipment, and an air conditioner for controlling a supply of air supplied into the chamber. The air conditioner includes a refrigerator having a compressor and a condenser and using a refrigerant, a first heat exchanger for exchanging heat between the refrigerant and a coolant, a second heat exchanger for exchanging heat between the coolant and the supply of air supplied into the chamber, and an electric heater having a temperature sensor for heating the supply of air at a predetermined temperature. As amended, Claim 1 sets forth that the refrigerant in a gaseous state is circulated through the first heat exchanger, the compressor and the condenser, and the refrigerant gas cools the coolant, in the first heat exchanger, and is subsequently compressed by the compressor and its temperature is raised thereby. The temperature-raised refrigerant gas is heat-exchanged with cooling water by the condenser, whereby it is cooled and liquified, and the coolant comprises a liquid and is circulated between the first and second heat exchangers.

Claim 21 relates to an apparatus comprised of a chamber and an air conditioner substantially as set forth in Claim 1, except for the recitation of first heat exchanger means and second heat exchanger means. As in Claim 1, Claim 21 has been amended to set forth that the refrigerant in a gaseous state is circulated to the first heat exchanger means, the compressor and the condenser, and the refrigerant gas cools the coolant, and the first heat exchanger means, and is subsequently compressed by the compressor and its temperature is raised thereby. The

temperature-raised refrigerant gas is heat-exchanged with cooling water by the condenser, whereby it is cooled and liquified, and wherein the coolant comprises a liquid and is circulated between the first and second heat exchanger means.

The primary citation to Endo relates to a temperature control system for an exposure apparatus in which a common refrigerant is used to cool both air and liquid. As shown in the figure, a temperature control system 4 uses a liquid medium to control the temperature of a projection lens. A separate temperature control system 3 uses air to control the temperature of chamber 2. The Office Action reads Endo to teach a cooler 20 as a first heat exchanger and coolers 8 or 14 as a second heat exchanger.

In contrast to Applicants' claimed invention, however, Endo is not understood to teach or suggest, among other features, circulating a refrigerant in a gaseous state through the first heat exchanger, the compressor and the condenser, with the refrigerant gas cooling the coolant in the first heat exchanger, and subsequently being compressed by the compressor and its temperature raised thereby, and wherein the temperature-raised refrigerant gas is heat exchanged with cooling water by the condenser, whereby it is cooled and liquified, and further wherein the coolant comprises a liquid and is circulated between the first and second heat exchangers. It is respectfully submitted that these claimed functions of the first and second heat exchangers should be afforded patentable weight pursuant to M.P.E.P. §2173.05(g).

The secondary citation to Tyler was cited for its teaching of an electric heater. This patent fails, however, to compensate for the deficiencies in Endo discussed above. Therefore, the proposed combination of Endo and Tyler, even if proper, still fails to teach or suggest Applicant's claimed invention.

Accordingly, reconsideration and withdrawal of the rejection of Claims 1, 2, 4-9, 11 and 18-21 under 35 U.S.C. §103 is respectfully requested.

Therefore, it is submitted that Applicant's invention as set forth in independent Claims 1 and 21 is patentable over the cited art. Dependent Claims 2, 4-9, 11 and 18-20 set forth additional features of Applicant's invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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